

For each question, you need to find the answer and show your work. Each problem is worth 3 points: one for the correct answer and two for showing your work. For some problems, you may just need to write out how you know you have the correct answer.

1. Simplify: $4(9 - 3) + 2$

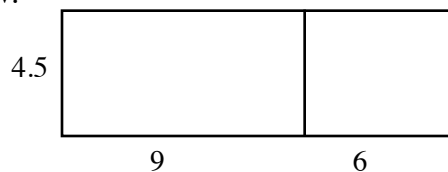
2. Evaluate: $a - 3h$ where $a = 5$ and $h = -7$

3. Simplify: $2a - 5b - 18r + 7b - 5a + 13r$

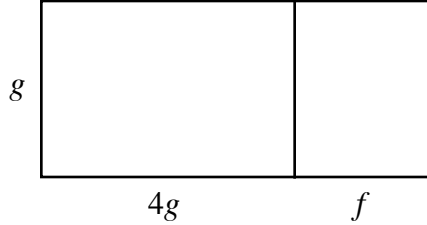
4. Three painters each used 6 gallons of paint for 8 rooms. On another project, 6 painters each used 8 gallons of paint for 3 rooms. Which property explains why both groups of painters used the same amount of paint?

5. If $x + y = y$, what is the value of xy ?

6. Find an expression that could be used to find the area of the large rectangle shown below.



7. Find an expression that could be used to find the area of the large rectangle shown below.



8. Simplify $3c + 5d - 9c + 12d - b$.

9. Which of the following is a correct application of the distributive property?

a. $6 + 3y = (6 + 3)y$

b. $3m + 12n = 3(m + 4n)$

c. $(5h + 8)j = 5h + 8j$

d. $6(k + 1) = 6k + 1$

Open-Ended Question: Answer the following question on a separate piece of paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!

You order some video games and mp3s from a Amazon. Each video game is \$59.99, and each mp3 is \$.99. All orders charge for shipping.

A. Write an expression that could be used to find the total amount you pay for any order.

B. You order 6 video games and 28 mp3s. The standard shipping cost of the order is \$9.93. Use the expression from part A to find the amount you pay.